

REMARKS

Claims 1 – 8, 10, and 11 remain in this case. Applicant respectfully requests the Examiner to examine them in view of the remarks below.

Applicant has reviewed the description and made changes to correct minor errors. In amending the claims, applicant has in addition to substantive changes noted below, also modified some of the diction to improve clarity.

With regard to the rejection under 35 U.S.C. § 102, Yamada teaches an electrical power supply system for a hybrid vehicle. The vehicle includes an electric motor (FIGS. 5, 6) and a transmission device for transmitting energy between the drive wheels, the motor and electrical accessories 13.

The system uses a main battery 41 to power the electric motor and a capacitor. Capacitor 42, with the main battery, forms a power supply for the electric motor. However, the capacitor 42 does not serve to power the electrical accessories of the vehicle. Moreover, the main battery 41 and the capacitor 42 are not connected via a switch device arranged to switch the current for powering the motor from the main battery to the capacitor and conversely.

The electric motor is powered either by the main battery when the current of the main battery 41 is under a specified value, or by the main battery and the capacitor 42 when the current of the main battery 41 is increased to a value greater than the specified value (as during acceleration).

Claim 1 as amended, defines an electric vehicle control system using two separate energy level thresholds to select the battery source for providing motive power. The second battery, which provides power for accessories, also provides motive power when power requirements are low, for example, when the vehicle is moving slowly in city traffic. This allows the first battery to maintain its charge and instead provides power from the second battery, which typically is of a less costly and more durable design than the first battery. In this way, the first battery can be of smaller capacity. Applicant believes that claim 1 is now allowable.

Claims 2 – 5 depend from claim 1 and are allowable for that reason.

Claim 6 defines a method for operating an electric vehicle having two batteries in a way that uses only a selected one of the batteries when the motor operates with low power. Yamada does not teach this feature, so claim 6 is also allowable.

Claim 7 defines a method similar to that of claim 6, but that bases switching to second battery power on both the energy requirements of the motor and the energy delivered by the first battery. Yamada does not teach this feature, so claim 6 is also allowable.

Claims 8 and 10 depend from claims 6 and 7 respectively and are allowable for that reason. They are similar and teach regenerative braking in the context of the claim 1 and 6 limitations. Yamada discusses regenerative braking, but not in connection with managing in a way depending on suitable charging rates for the batteries, battery charging of two batteries resulting from regenerative braking. Application, p. 6, line 11ff provides support for the limitations in these claims. Accordingly, applicant believes a further basis for allowing claims 8 and 10 exists.

Claim 11 depends from claim 1 and is allowable for that reason. In addition, claim 11 teaches a three stage power management system that determines when the first battery, second battery, and both batteries provide power to the motor. Support for this claim 11 is found in the application on p. 5, lines 11 – 30. Yamada does not show such battery management.

Please charge any deficiencies or credit any overpayment to Deposit Account No. 14-0620.

Respectfully submitted,

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By their attorney

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